

REMARKS

Claim Rejections under 35 U.S.C. 103

Claims 1-2, 9-11, 14 and 17-27 are rejected under 35 U.S.C 103(a) as being unpatentable over Piesco in view of Nakamoto et al.

In response

With regard to claim 1, this recites a network testing apparatus that comprises a plurality of communication ports, a software module, and a hardware module. The software module comprises a network simulating database for storing a plurality of network simulating models, a network protocol database for storing a plurality of network protocols, a simulation processing module, and a traffic generation controlling module. The simulation processing module is provided for selecting one of the network simulating models and one of the network protocols, and generating a first traffic generating command when the network testing apparatus is in a network simulating test mode. The traffic generation controlling module is provided for generating a second traffic generating command when the network testing apparatus is in a traffic generator operating mode. The hardware module comprises a traffic generating apparatus and a media access control. The traffic generating apparatus is provided for generating corresponding traffic according to the first traffic generating command or the second traffic generating command. The media access control is provided for transmitting the generated traffic to a corresponding communication port.

Piesco essentially discloses a network emulator/simulator 10 that includes a data repository 11, a traffic generation module 13, and a modeling & simulation module 15 (figs. 1-4, pgs. 1-3 [0015]-[0030]). The data repository 11 collects and stores various types of data that are related to real-time network modeling and simulation. The traffic generation module 13 and the modeling & simulation

module 15 can be collectively referred to as Sybil. Sybil has the ability to assume multiple personalities.

Examiner states to the effect that the presently claimed network simulating database and the network protocol database are taught as the data repository 11. However, Piesco fails to teach or suggest that data in the data repository 11 includes a plurality of network simulating models and a plurality of network protocols. Therefore, the network simulating database and the network protocol database are novel compared to the data repository 11.

Examiner states to the effect that the presently claimed simulation processing module is taught as the modeling & simulation module 15. However, Piesco fails to teach or suggest that the modeling & simulation module 15 has the function of selecting one of the network simulating models and one of the network protocols, and generating a first traffic generating command when the network testing apparatus is in a network simulating test mode. Therefore, the simulation processing module is novel compared to the modeling & simulation module 15 of Piesco.

Examiner states to the effect that the presently claimed traffic generation controlling module and the traffic generating apparatus are taught as the traffic generation module 13. However, Piesco fails to teach or suggest that the traffic generation module 13 has the function of generating a second traffic generating command when the network testing apparatus is in a traffic generator operating mode, and the function of generating corresponding traffic according to the first traffic generating command or the second traffic generating command. Therefore, the traffic generation controlling module and the traffic generation apparatus are novel compared to the traffic generation module 13 of Piesco.

In addition, Nakamoto et al. do not teach or suggest that the modeling & simulation module 15 has the function of selecting one of the network simulating

models and one of the network protocols, and generating a first traffic generating command when the network testing apparatus is in a network simulating test mode; and do not teach or suggest that the traffic generation module 13 has the function of generating a second traffic generating command when the network testing apparatus is in a traffic generator operating mode, and the function of generating corresponding traffic according to the first traffic generating command or the second traffic generating command.

For at least the above reasons, it is submitted that Piesco and Nakamoto et al. do not provide any or sufficient teaching or suggestion for one of ordinary skill in the art that they could be combined and lead to providing the network testing apparatus of the present invention. The references taken as a whole fall short of suggesting the invention of claim 1. That is, the network testing apparatus of claim 1 is unobvious and patentable over Piesco in view of Nakamoto et al. under 35 U.S.C. 103.

Claims 2 and 22-25 are dependent on claim 1, and incorporated more limitations therein. Therefore claims 2 and 22-25 should now also be patentable over Piesco in view of Nakamoto et al. under 35 U.S.C. 103.

With regard to claim 9, Applicant respectfully traverses the rejection for reasons similar to those asserted above in relation to claim 1. In particular, and furthermore:

Claim 9 recites a network testing system that includes at least one network device, at least one administrative workstation, and a network testing apparatus essentially the same as that recited in amended claim 1. The administrative workstation includes a simulation test controlling module and a traffic generating parameter designing module. The simulation test controlling module is used for selecting simulation test parameters including first traffic generating parameters, and transmitting the simulation test parameters. The traffic generating parameter

designing module is used for inputting second traffic generating parameters, and transmitting the second traffic generating parameters.

On p.4 of the Office action regarding claim 9, Examiner states to the effect that Piesco teaches the administrative workstation of claim 9 (figs. 1-4). In earlier comments regarding claim 9, Examiner refers to pgs. 1-3 [0015]-[0030]. However, it is not clear to Applicant what (if anything) in Piesco teaches the workstation. Piesco does teach that a group of workstations are included in the VLAN 20, a workstation 27 is included in a hardware inventory, and workstations are included in the configuration manager 21 (fig. 2, pgs. 2-3 [0021]-[0024]). However, the workstations included in the VLAN 20 only act as a single network segment, the workstation 27 included in the hardware inventory only acts as a physical network component, and the workstations included in the configuration manager 21 are merely reset to obtain new Internet protocol (IP) addresses to join the correct VLAN. Thus, any of the workstations disclosed by Piesco is very different from the workstation of the present invention.

If Examiner maintains that Piesco teaches the administrative workstation of claim 9, Applicant asserts that at present no reasonable basis for such position has been provided. Accordingly, Applicant submits that Examiner has failed to present a prima facie case of unobviousness of the system of claim 9. In these circumstances, Applicant respectfully requests that proper details in support of an assertion that Piesco teaches the administrative workstation of claim 9 be provided in a next Office action, and that the finality of the present Office action be withdrawn.

In addition, nowhere in Piesco and Nakamoto et al. is there any teaching or suggestion of at least one workstation that comprises a simulation test controlling module and a traffic generating parameter designing module. Therefore, both Piesco and Nakamoto et al., alone or in combination, fail to teach or suggest that at least one administrative workstation comprises a simulation test controlling module and a traffic generating parameter designing module.

For at least the above reasons, the network testing system of claim 9 is unobvious and patentable over Piesco in view of Nakamoto et al. under 35 U.S.C. 103.

Claims 10-11, 14, 17 and 26-27 depend directly or indirectly upon claim 9 and incorporate more limitations therein. Therefore claims 10-11, 14, 17 and 26-27 should now also be patentable.

With regard to claim 18, this recites that a network testing method comprises setting the network testing apparatus in a network simulating test mode or a traffic generator operating mode; setting simulation test parameters, and transmitting the simulation test parameters to the network testing apparatus when the simulation testing apparatus is set in the simulating test mode, wherein the simulation test parameters comprise first traffic generating parameters; and receiving the simulation test parameters, selecting a network simulating model and a network protocol according to the simulation test parameters, and controlling traffic generation to perform a network simulation test. The network testing method of claim 18 is typically executed by the simulation processing module, the traffic generating apparatus, and the administrative workstation of claim 9.

Examiner states to the effect that the combination of Piesco and Nakamoto et al. teach the network testing method of claim 18. In particular, Piesco discloses that a method for simulating a computer network comprises acquiring physical network components from a hardware inventory and simulated network components from a software library; configuring said acquired physical network components; configuring said acquired simulated network components; and performing computer network security tests on said simulated computer network in real-time (Piesco figs. 1-4; also pgs. 1-3, [0015]-[0030]). The method disclosed by Piesco is executed by the configuration manager 21 quite apart from the modeling & simulation module 15 and the traffic generation module 13. Each step of the method disclosed by Piesco is different from that of the method of claim 18. In particular, Piesco fails to teach or suggest any one of the steps of setting the network testing apparatus in a network simulating test mode or a traffic generator operating mode; setting simulation test parameters, and transmitting the simulation test parameters to the network testing apparatus when the simulation testing apparatus is set in the simulating test mode, wherein the simulation test parameters comprise first traffic generating parameters; and receiving the simulation test parameters, selecting a network simulating model and a network protocol according to the simulation test parameters, and controlling traffic generation to perform a network simulation test. That is, Piesco fails to teach or suggest the method of claim 18.

Nakamoto et al. essentially disclose a method for testing a networking system's performance. The method comprises: obtaining user configuration data; generating configuration information for at least one testing device; generating network traffic data; applying said network traffic data to at least one networking

system; capturing a test result of said at least one networking system; and communicating said test result (see Nakamoto et al. figs. 1-6; also pgs. 2-4, [0017-0043]). Each step of the method disclosed by Nakamoto et al. is different from that of any comparable step of the method of claim 18 herein. In particular, Nakamoto et al. fail to teach or suggest any one of the steps of setting the network testing apparatus in a network simulating test mode or a traffic generator operating mode; setting simulation test parameters, and transmitting the simulation test parameters to the network testing apparatus when the simulation testing apparatus is set in the simulating test mode, wherein the simulation test parameters comprise first traffic generating parameters; and receiving the simulation test parameters, selecting a network simulating model and a network protocol according to the simulation test parameters, and controlling traffic generation to perform a network simulation test. That is, Nakamoto et al. fail to teach or suggest the method of claim 18.

For at least the above reasons, it is submitted that each of Piesco and Nakamoto et al. does not provide any or sufficient teaching or suggestion for one of ordinary skill in the art that it could be combined with the other and provide the network testing method of the present invention. The references taken as a whole fall short of suggesting the invention of claim 18. That is, the network testing method of claim 18 is unobvious and patentable over Piesco in view of Nakamoto et al. under 35 U.S.C. 103.

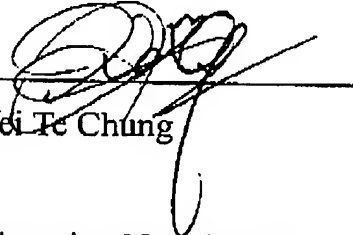
Claims 19-21 are dependent on claim 18, and incorporated more limitations therein. Therefore claims 19-21 should now also be patentable over Piesco in view of Nakamoto et al. under 35 U.S.C. 103.

In view of the above remarks, the subject application is believed to be in a condition for allowance, and an action to such effect is earnestly solicited.

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